IN THE UNI1450TED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): LEE, Sung-Won

Examiner: SCHEIBEL, Robert C.

Serial No.: 09/761,005

Group Art Unit: 2616

Filed: January 16, 2001

Docket: 678-595 (P9710)

For: APPARATUS AND METHOD FOR
ASSIGNING A SUPPLEMENTAL CHANNEL
IN MOBILE COMMUNICATION SYSTEM

Dated: February 26, 2007

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

TRANSMITTAL OF APPELLANT'S BRIEF ON APPEAL

Sir:

Enclosed please find APPELLANT'S BRIEF.

Also enclosed is a check in the amount of $500.00 to cover the appeal fee.

If the enclosed check is insufficient for any reason or becomes detached, please charge the required fee under 37 C.F.R. §1.17 to Deposit Account No. 50-4053. Also, in the event any additional extensions of time are required, please treat this paper as a petition to extend the time as required and charge Deposit Account No. 50-4053. TWO COPIES OF THIS SHEET ARE ENCLOSED.

Respectfully submitted,

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APPEAL BRIEF

REAL PARTY IN INTEREST

The real party in interest is Samsung Electronics Co, Ltd, the assignee of the subject
application, having an office at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic
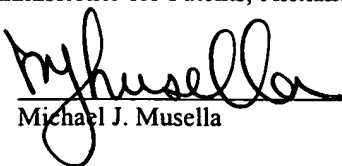of Korea.

RELATED APPEALS AND INTERFERENCES

To the best of Appellants' knowledge and belief, there are no currently pending related
appeals, interferences or judicial proceedings.

STATUS OF CLAIMS

Original Claims 1-35 were filed on January 16, 2001. Claim 1 was amended in a Response filed September 29, 2004. Claim 1 was amended in a Request for Continued Examination (RCE) filed August 5, 2005. Claims 1, 9, 17 and 27 were amended in a Response filed January 17, 2006. Claims 1, 9, 17 and 27 were amended in a Request for Continued Examination (RCE) filed August 23, 2006.

Thus, Claims 1-35 are pending in the Appeal. Claims 1, 9, 17 and 27 are in independent form. Claims 24 and 25 have been identified as containing allowable subject matter.

For the purposes of this appeal, Claims 1-8 stand or fall together, Claims 9-16 stand or fall together, Claims 17-23 and 26 stand or fall together, and Claims 27-35 stand or fall together.

STATUS OF AMENDMENTS

All amendments that have been filed to date have been entered. Thus, the Appendix to this Appeal Brief includes Claims 1-35, of which the status of Claims 1, 9, 17 and 27 is indicated as "Previously Presented", and the status of Claims 2-8, 10-16, 18-26 and 29-35 is indicated as "Original".

SUMMARY OF CLAIMED SUBJECT MATTER

The invention recited in Claim 1 relates to a channel assigning method in a mobile communication system.

The method includes generating a channel assignment message. (Specification at page 7, line 20 – page 8, line 1.)[1]

The channel assignment message includes a start time for channel assignment, a duration of the channel assignment, and a sequence number or a message identifier for identifying two or more channel assignment messages. (Specification at page 8, lines 7-10.)

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[1] Although a citation for each feature of the claims is provided herein, Applicants do not concede the fact that support may be found elsewhere in the written description.

The sequence number or the message identifier is used for identifying a sequential order for each of a plurality of channel assignment messages. (Specification at page 8, lines 7-10.)

The method further includes transmitting the channel assignment message to a mobile station on an existing traffic channel. (Specification at page 9, lines 19-23.)

The channel assignment message is transmitted to the mobile station without receiving a channel assignment request message from the mobile station. (Specification at page 13, lines 20-22.)

The invention recited in Claim 9 relates to a method of generating a scheduling table.

The method includes receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message. (Specification at page 9, lines 15-17.)

Each of the channel assignment messages includes the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for identifying channel identification. (Specification at page 8, lines 7-10.)

The method further includes storing the received channel assignment messages in a memory according to the start times, durations, and sequence numbers of the channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages. (Specification at page 9, line 19 – page 10, line 21.)

The invention recited in Claim 17 relates to a channel assigning method for a mobile station in a CDMA mobile communication system.

The method includes receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message. (Specification at page 9, lines 15-17.)

Each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification. (Specification at page 8, lines 7-10.)

The method further includes storing the received channel assignment messages in a memory according to the durations and sequence numbers or the message identifier of the channel assignment messages. (Specification at page 9, line 19 – page 10, line 21.)

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The method still further includes conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message and then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message. (Specification at page 10, line 27 – page 13, line 11.)

The invention recited in Claim 27 relates to a channel assigning apparatus for a mobile station in a CDMA mobile communication system.

The apparatus includes a receiver for receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message. (Specification at page 9, lines 15-17.)

Each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification. (Specification at page 8, lines 7-10.)

The apparatus further includes a memory having a scheduling table for storing the received channel assignment messages. (Specification at page 10, line 1.)

The apparatus still further includes a controller for storing the received channel assignment message in the scheduling table of the memory according to the durations and sequence numbers or the message identifier of the channel assignment messages, sequentially reading the stored channel assignment messages, and assigning channels based on the channel identifiers of the read channel assignment messages, for data communication. (Specification at page 9, lines 19 – page 10, line 21.)

GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 1, 2, 4, 8-11, 16-19, 26-29, 34 and 35 are unpatentable under 35 U.S.C. §

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103(a) over 3rd Generation Partnership Project 2, C.S0005-0 Version 1.0 (3GPP2)[2] in view of U.S. Patent 5,883,888 (St.-Pierre).

Whether Claim 3 is unpatentable under 35 U.S.C. § 103(a) over the 3GPP2 in view of St.-Pierre and further in view of U.S. Patent 4,612,637 (Davis et al.).

Whether Claims 5, 7, 12, 14, 20, 22, 30 and 32 are unpatentable under 35 U.S.C. § 103(a) over the 3GPP2 in view of St.-Pierre and further in view of U.S. Patent 6,011,806 (Herring).

Whether Claim 6 is unpatentable under 35 U.S.C. § 103(a) over the 3GPP2 in view of St.-Pierre and Davis, and further in view of Herring.

Whether Claims 13, 15, 21, 23, 31 and 33 are unpatentable under 35 U.S.C. § 103(a) over the 3GPP2 in view of St.-Pierre and Herring, and further in view of Davis.

ARGUMENT

The Examiner rejected independent Claims 1, 9, 17 and 27 under 35 U.S.C. §103(a) as being unpatentable over 3GPP2 in view of St-Pierre.

1. Independent Claim 1 is patentable over 3GPP2 in view of St-Pierre

Independent Claim 1 was said to be unpatentable over 3GPP2 in view of St-Pierre.

Claim 1 recites a channel assigning method in a mobile communication system. The method generates a channel assignment message including a start time for channel assignment, a duration of the channel assignment, and a sequence number or a message identifier[3] for identifying two or more channel assignment messages. The sequence number or the message identifier is used for identifying a sequential order for each of a plurality of channel assignment messages. The method transmits the channel assignment message to a mobile station on an existing traffic channel, without receiving a channel assignment request message from the mobile station.

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[2] 3GPP2 was submitted to the U.S. Patent and Trademark Office in a Supplemental Information Disclosure Statement (IDS) filed on February 17, 2004. As stated in an Interview Summary dated October 3, 2006, this document was received by the Patent Office, but only an excerpt from the full document was scanned into eDAN. At this time the Appellant requests that the full document be scanned into eDAN and thereby made available to the Board of Patent Appeals and Interferences (BPAI).

[3] The claims of the present application were amended in a Response filed August 3, 2006 to add the limitation "or a message identifier". This amendment is directed more to form than substance since "sequence number" and "message identifier" is used alternatively throughout the written description. See for example, specification at page 8, lines 7-8.

3GPP2 discloses upper layer signaling standards for code division multiple access (CDMA) cdma2000 spread spectrum systems.

St-Pierre discloses seamless soft handoff in a CDMA cellular communications system.

1A. <u>Since neither 3GPP2 nor St-Pierre teach or disclose a sequence number or a message identifier for identifying two or more channel assignment messages, the sequence number or the message identifier for identifying a sequential order for each of a plurality of channel assignment messages, neither reference, nor any combination thereof, can be used to render obvious Claim 1</u>

Claim 1 recites a sequence number or a message identifier[4] for identifying two or more channel assignment messages. The sequence number or the message identifier of Claim 1 is used to identify a sequential order for each of a plurality of channel assignment messages.

In rejecting Claim 1, as set forth in the Office Action of August 23, 2006,[5] the Examiner relies on 3GPP2 as allegedly disclosing all of the features of Claim 1,[6] except that the Examiner concedes that 3GPP2 does not disclose 1) the channel assignment message including a sequence number or a message identifier for identifying two or more channel assignment messages, or 2) the sequence number or the message identifier identifies a sequential order for each of a plurality of channel assignment messages, and relies on St-Pierre as allegedly disclosing these features.[7]

Claim 1 relates to a base station that transmits a supplemental channel assignment message including a sequence number or a message identifier to a mobile station in a forward direction and assigns a supplemental channel based on the transmitted message.

The supplemental channel assignment message of Claim 1 includes a sequence number or a message identifier in order to identify a plurality of supplemental channel assignment messages. That is, the sequence number or the message identifier of Claim 1 is used to identify two or more channel assignment messages. In addition, the sequence number or the message identifier indicates the sequence of the plurality of the supplemental channel assignment messages. For example, when a plurality of supplemental channel assignment messages are received by a mobile station, the mobile

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[4] It is interesting to note that the Examiner states, in the Office Action dated August 23, 2006, at page 2, third paragraph in the Response to Arguments section, "Applicant states that the sequence number or message identifier of the present invention is different that that [sic] of the combination of 3GPP2 and St. Pierre. While this may be true..." and continues on to urge the Applicant to amend the claims with rather narrow features from dependent claims.

[5] See Office Action dated August 23, 2006 at pages 3-4, and page 11.

[6] See Office Action dated August 23, 2006 at pages 3-4.

station can order the supplemental channel assignment messages based on the sequence number or message identifier. This solved the existing problem in the prior art of when a base station sequentially transmitted multiple supplemental channel assignment messages, a mobile station was unable to sequentially reorder the multiple supplemental channel assignment messages.[8]

Although 3GPP2 teaches the use of a "sequence number" (SCRM_SEQ_NUM),[9] the "sequence number" of 3GPP2 cannot be equated with the sequence number or message identifier of Claim 1.

3GPP2 teaches that when there is traffic to be transmitted from a mobile station to a base station, the mobile station transmits to the base station a request for a supplemental channel assignment ("Supplemental Channel Request Message").[10] The Supplemental Channel Request Message includes the SCRM_SEQ_NUM,[11] which is defined as follows:

> SCRM_SEQ_NUM – *Supplemental Channel Request Message* sequence number. If USE_SCRM_SEQ_NUM is set to '1', the mobile station shall set this field to the *Supplemental Channel Request Message* sequence number that the base station is to include in a *Supplemental Channel Assignment Message* which is in response to this message; otherwise, the mobile station shall omit this field.[12]

In response to the request, the base station transmits a message ("Supplemental Channel Assignment Message") assigning a channel to the mobile station.[13] The Supplemental Channel Assignment Message also includes the SCRM_SEQ_NUM,[14] which is defined as follows:

> SCRM_SEQ_NUM - *Supplemental Channel Request Message* sequence number. If USE_SCRM_SEQ_NUM is set 1 to '1', the base station shall set this field to the sequence number corresponding to the SCRM_SEQ_NUM field in a *Supplemental Channel Request Message* to which the mobile station is to match this message; otherwise, the base station shall omit this field.[15]

Therefore, in the 3GPP2 system, a mobile station sends to a base station a request message

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[7] See Office Action dated August 23, 2006 at page 11.
[8] See Specification at page 3, line 28 – page 4, line 15.
[9] See 3GPP2 at page 3-261, line 42 – page 3-262, line 5.
[10] See 3GPP2 at Figure B-19, page B-35.
[11] See 3GPP2 at Table 2.7.2.3.18, at page 2-428.
[12] See 3GPP2 at page 2-429, lines 7-13.
[13] See 3GPP2 Figure B-19, page B-35.
[14] See 3GPP2 at Table 3.7.3.3.2.24, at page 3-258.

containing an identifier, and the base station sends to the mobile station an assignment message containing the same identifier, which the mobile station uses to determine that an assignment message is the assignment message sent in response to the request message originally sent by the mobile station. This is clearly different from a sequence number or a message identifier used to identify a plurality of supplemental channel assignment messages and indicate the sequence of the plurality of the supplemental channel assignment messages as recited in Claim 1, a position that the Examiner concedes.[16]

The Examiner relies on St-Pierre for teaching a sequence number or a message identifier for identifying two or more channel assignment messages, the sequence number or the message identifier used to identify a sequential order for each of a plurality of channel assignment messages, as recited in Claim 1.

Although St-Pierre teaches the use of a "sequence number",[17] the "sequence number" of St-Pierre cannot be equated with the sequence number or message identifier of Claim 1.

St.-Pierre relates to seamless soft handoff in a CDMA cellular communication system. Referring to FIG. 4 of St.-Pierre, a mobile station communicates with a first base station (block 42) and then, if a need is detected to perform a handoff to a second base station (block 44), an MSC instructs the second base station to establish communication with the mobile station (block 48).[18] The mobile station receives duplicate communications in a simultaneous manner through both the first base station and the second base station (block 50).[19] Thereafter, the mobile station receives a frame of the communication transmitted from the first base station as well as a frame of the communication transmitted from the second base station (block 58).[20] Next, the mobile station compares sequence numbers included in the frames with each other (block 60).[21] If the sequence numbers of the frames are identical to each other, the mobile station performs diversity combining of the received duplicate communication (block 68).[22] The reason for comparing the sequence numbers in block 60 is because the frame received from the first base station may not be a duplicate with the

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[15] See 3GPP2 at page 3-261, line 47 – page 3-262, line 5.

[16] As stated above, the Examiner does concede this position. See Office Action dated August 23, 2006 at page 7, lines 7, et seq.

[17] See St-Pierre at col. 5, lines 34-40.

[18] See St-Pierre at col. 6, lines 45-62.

[19] See St-Pierre at col. 7, lines 9-11.

[20] See St-Pierre at col. 7, lines 11-15.

[21] See St-Pierre at col. 7, lines 15-23.

frame received from the second base station and the duplicated frames may not be simultaneously received.[23]

Therefore, the sequence number of St.-Pierre is used to determine whether a frame received from a first base station is the same frame received from a second base station.

The sequence numbers, recited in Claim 1 of the present application, are used to uniquely identify two or more channel assignment messages by identifying a sequential order for each of a plurality of channel assignment messages. Therefore, the sequence numbers used to identify multiple messages is not the same as a sequence number used to identify a response to a request (3GPP2) or a sequence number used to identify the same information from two different sources (St-Pierre).

Since neither 3GPP2 nor St-Pierre, nor any combination thereof, disclose the recitation of Claim 1 of the present application, of a sequence number or a message identifier for identifying two or more channel assignment messages, the sequence number or the message identifier for identifying a sequential order for each of a plurality of channel assignment messages, Claim 1 cannot be rendered obvious by 3GPP2 in view of St-Pierre.

Based on at least the foregoing, reversal of the rejection of independent Claim 1 under §103(a) is respectfully requested.

1B. Since there is no motivation to combine 3GPP2 and St-Pierre, any combination thereof cannot be used to render obvious Claim 1

Further, even if that which is disclosed by St.-Pierre was analogous to the recitations of the claims of the present application, which it is not, the references cannot be combined since there is nothing in 3GPP2 to suggest adding sequence numbers to the channel assignment messages as proffered by the Examiner. 3GPP2 does not disclose a sequence number used to identify two or more channel assignment messages, and therefore the Examiner is using the present application as motivation (i.e. hindsight) for the combination, and is improper.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). M.P.E.P. 2143.01.

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[22] See St-Pierre at col. 7, lines 23-35.
[23] See St-Pierre at col. 7, lines 15-20.

A statement that modifications of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab,* 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000). M.P.E.P. 2143.01. Applicants may argue that the Examiner's conclusion of obviousness is based on improper hindsight reasoning. Any judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure... *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). M.P.E.P. 2145.

Since the conclusion of obviousness and the reason for combining could be gleaned only from Applicant's disclosure, the rejection is improper.

Based on at least the foregoing, reversal of the rejection of independent Claim 1 under §103(a) is respectfully requested.

1C. Independent Claim 1 is not rendered obvious by 3GPP2 in view of St-Pierre

The Examiner has failed to show that each and every element of Claim 1, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facia case for an obviousness rejection, and thus Claim 1 is allowable.

2. Dependent Claims 2-8 are patentable over 3GPP2 in view of St-Pierre

Without conceding the patentability per se of dependent Claims 2-8, these claims are likewise believed to be allowable by virtue of at least their dependence on Claim 1.

3. Independent Claim 9 is patentable over 3GPP2 in view of St-Pierre

Independent Claim 9 was said to be unpatentable over 3GPP2 in view of St-Pierre.

Claim 9 recites a scheduling table making method. The method receives a plurality of channel assignment messages successively from a base station on an existing traffic channel, without

the base station receiving a channel assignment request message. Each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for identifying channel identification. The method stores the received channel assignment messages in a memory according to the start times, durations, and sequence numbers of the channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages.

3GPP2 discloses upper layer signaling standards for code division multiple access (CDMA) cdma2000 spread spectrum systems.

St-Pierre discloses seamless soft handoff in a CDMA cellular communications system.

3A. <u>Since neither 3GPP2 nor St-Pierre teach or disclose a sequence number or a message identifier for identifying two or more channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages, neither reference, nor any combination thereof, can be used to render obvious Claim 9</u>

Claim 9 recites a sequence number or a message identifier for identifying two or more channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages. The sequence number or the message identifier of Claim 9 is used to identify each of a plurality of channel assignment messages.

Since these features are similar to features recited in Claim 1, the arguments set forth above in section 1A with respect to Claim 1 are also applicable to Claim 9.

Since neither 3GPP2 nor St-Pierre, nor any combination thereof, disclose the recitation of Claim 9 of the present application, of a sequence number or a message identifier for identifying two or more channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages, Claim 9 cannot be rendered obvious by 3GPP2 in view of St-Pierre.

Based on at least the foregoing, reversal of the rejection of independent Claim 9 under §103(a) is respectfully requested.

3B. <u>Since there is no motivation to combine 3GPP2 and St-Pierre, any combination thereof cannot be used to render obvious Claim 9</u>

Further, even if that which is disclosed by St.-Pierre was analogous to the recitations of the claims of the present application, which it is not, the references cannot be combined since there is nothing in 3GPP2 to suggest adding sequence numbers to the channel assignment messages as proffered by the Examiner. 3GPP2 does not disclose a sequence number used to identify two or more channel assignment messages, and therefore the Examiner is using the present application as motivation (i.e. hindsight) for the combination, and is improper.

Since this argument is similar to the argument recited in Claim 1, the arguments set forth above in section 1B with respect to Claim 1 are also applicable to Claim 9.

Since the conclusion of obviousness and the reason for combining could be gleaned only from Applicant's disclosure, the rejection is improper.

Based on at least the foregoing, reversal of the rejection of independent Claim 9 under §103(a) is respectfully requested.

3C. Independent Claim 9 is not rendered obvious by 3GPP2 in view of St-Pierre

The Examiner has failed to show that each and every element of Claim 9, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facia case for an obviousness rejection, and thus Claim 9 is allowable.

4. Dependent Claims 10-16 are patentable over 3GPP2 in view of St-Pierre

Without conceding the patentability per se of dependent Claims 10-16, these claims are likewise believed to be allowable by virtue of at least their dependence on Claim 9.

5. Independent Claim 17 is patentable over 3GPP2 in view of St-Pierre

Independent Claim 17 was said to be unpatentable over 3GPP2 in view of St-Pierre.

Claim 17 recites a channel assigning method for a mobile station in a CDMA mobile communication system. The method receives a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message. Each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification. The method stores the received channel

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assignment messages in a memory according to the durations and sequence numbers or the message identifier of the channel assignment messages. The method conducts data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message and then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message. The start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message.

3GPP2 discloses upper layer signaling standards for code division multiple access (CDMA) cdma2000 spread spectrum systems.

St-Pierre discloses seamless soft handoff in a CDMA cellular communications system.

5A. <u>Since neither 3GPP2 nor St-Pierre teach or disclose a sequence number or a message identifier for identifying two or more channel assignment messages, or stores the received channel assignment messages in a memory according to the durations and sequence numbers or the message identifier of the channel assignment messages, neither reference, nor any combination thereof, can be used to render obvious Claim 17</u>

Claim 17 recites a sequence number or a message identifier for identifying two or more channel assignment messages, or stores the received channel assignment messages in a memory according to the durations and sequence numbers or the message identifier of the channel assignment messages. The sequence number or the message identifier of Claim 17 is used to identify each of a plurality of channel assignment messages.

Since these features are similar to features recited in Claim 1, the arguments set forth above in section 1A with respect to Claim 1 are also applicable to Claim 17.

Since neither 3GPP2 nor St-Pierre, nor any combination thereof, disclose the recitation of Claim 17 of the present application, of a sequence number or a message identifier for identifying two or more channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages, Claim 17 cannot be rendered obvious by 3GPP2 in view of St-Pierre.

Based on at least the foregoing, reversal of the rejection of independent Claim 17 under

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§103(a) is respectfully requested.

5B. Since there is no motivation to combine 3GPP2 and St-Pierre, any combination thereof cannot be used to render obvious Claim 17

Further, even if that which is disclosed by St.-Pierre was analogous to the recitations of the claims of the present application, which it is not, the references cannot be combined since there is nothing in 3GPP2 to suggest adding sequence numbers to the channel assignment messages as proffered by the Examiner. 3GPP2 does not disclose a sequence number used to identify two or more channel assignment messages, and therefore the Examiner is using the present application as motivation (i.e. hindsight) for the combination, and is improper.

Since this argument is similar to the argument recited in Claim 1, the arguments set forth above in section 1B with respect to Claim 1 are also applicable to Claim 17.

Since the conclusion of obviousness and the reason for combining could be gleaned only from Applicant's disclosure, the rejection is improper.

Based on at least the foregoing, reversal of the rejection of independent Claim 17 under §103(a) is respectfully requested.

5C. Independent Claim 17 is not rendered obvious by 3GPP2 in view of St-Pierre

The Examiner has failed to show that each and every element of Claim 17, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facia case for an obviousness rejection, and thus Claim 17 is allowable.

6. Dependent Claims 18-23 and 26 are patentable over 3GPP2 in view of St-Pierre

Without conceding the patentability per se of dependent Claims 18-23 and 26, these claims are likewise believed to be allowable by virtue of at least their dependence on Claim 17.

7. Independent Claim 27 is patentable over 3GPP2 in view of St-Pierre

Independent Claim 27 was said to be unpatentable over 3GPP2 in view of St-Pierre.

Claim 27 recites a channel assigning apparatus for a mobile station in a CDMA mobile communication system. The apparatus includes a receiver for receiving a plurality of channel

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assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message. Each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification. The apparatus includes a memory having a scheduling table for storing the received channel assignment messages. The apparatus also includes a controller for storing the received channel assignment message in the scheduling table of the memory according to the durations and sequence numbers or the message identifier of the channel assignment messages, sequentially reading the stored channel assignment messages, and assigning channels based on the channel identifiers of the read channel assignment messages, for data communication.

3GPP2 discloses upper layer signaling standards for code division multiple access (CDMA) cdma2000 spread spectrum systems.

St-Pierre discloses seamless soft handoff in a CDMA cellular communications system.

7A. <u>Since neither 3GPP2 nor St-Pierre teach or disclose a receiver for receiving a sequence number or a message identifier for identifying two or more channel assignment messages, or a memory and a controller for storing the received channel assignment messages according to the durations and sequence numbers or the message identifier of the channel assignment messages, neither reference, nor any combination thereof, can be used to render obvious Claim 27</u>

Claim 27 recites a receiver for receiving a sequence number or a message identifier for identifying two or more channel assignment messages, or a memory and a controller for storing the received channel assignment messages according to the durations and sequence numbers or the message identifier of the channel assignment messages. The sequence number or the message identifier of Claim 27 is used to identify each of a plurality of channel assignment messages.

Since these features are similar to features recited in Claim 1, the arguments set forth above in section 1A with respect to Claim 1 are also applicable to Claim 27.

Since neither 3GPP2 nor St-Pierre, nor any combination thereof, disclose the recitation of Claim 27 of the present application, of a sequence number or a message identifier for identifying two or more channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages, Claim 27 cannot be rendered obvious by 3GPP2 in

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view of St-Pierre.

Based on at least the foregoing, reversal of the rejection of independent Claim 27 under §103(a) is respectfully requested.

7B. Since there is no motivation to combine 3GPP2 and St-Pierre, any combination thereof cannot be used to render obvious Claim 27

Further, even if that which is disclosed by St.-Pierre was analogous to the recitations of the claims of the present application, which it is not, the references cannot be combined since there is nothing in 3GPP2 to suggest adding sequence numbers to the channel assignment messages as proffered by the Examiner. 3GPP2 does not disclose a sequence number used to identify two or more channel assignment messages, and therefore the Examiner is using the present application as motivation (i.e. hindsight) for the combination, and is improper.

Since this argument is similar to the argument recited in Claim 1, the arguments set forth above in section 1B with respect to Claim 1 are also applicable to Claim 27.

Since the conclusion of obviousness and the reason for combining could be gleaned only from Applicant's disclosure, the rejection is improper.

Based on at least the foregoing, reversal of the rejection of independent Claim 27 under §103(a) is respectfully requested.

7C. Independent Claim 27 is not rendered obvious by 3GPP2 in view of St-Pierre

The Examiner has failed to show that each and every element of Claim 27, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facia case for an obviousness rejection, and thus Claim 27 is allowable.

8. Dependent Claims 28-35 are patentable over 3GPP2 in view of St-Pierre

Without conceding the patentability per se of dependent Claims 28-35, these claims are likewise believed to be allowable by virtue of at least their dependence on Claim 27.

CONCLUSION

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As the Examiner has failed to make out a prima facie case for an obviousness rejection, the rejection of Claims 1-23 and 26-35 must be reversed.

It is well settled that in order for a rejection under 35 U.S.C. §103(a) to be appropriate, the claimed invention must be shown to be obvious in view of the prior art as a whole. A claim may be found to be obvious if it is first shown that all of the recitations of a claim are taught in the prior art or are suggested by the prior art. In re Royka, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974), cited in M.P.E.P. §2143.03.

The Examiner has failed to show that all of the recitations of Claims 1-23 and 26-35 are taught or suggested by the either Kallel or Citation #1, or the combination thereof. Accordingly, the Examiner has failed to make out a prima facie case for an obviousness rejection.

Independent Claims 1-23 and 26-35 are not rendered unpatentable by either 3GPP2 or St-Pierre, or the combination thereof. Therefore, the rejections of Claims 1-23 and 26-35 must be reversed.

Dated: February 26, 2007

By: _____

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CLAIMS APPENDIX

1. (Previously Presented) A channel assigning method in a mobile communication system, comprising the steps of:

generating a channel assignment message including a start time for channel assignment, a duration of the channel assignment, and a sequence number or a message identifier for identifying two or more channel assignment messages; and

transmitting the channel assignment message to a mobile station on an existing traffic channel, without receiving a channel assignment request message from the mobile station,

wherein the sequence number or the message identifier is used for identifying a sequential order for each of a plurality of channel assignment messages.

2. (Original) The channel assigning method of claim 1, further comprising the step of deleting a previous channel assignment message.

3. (Original) The channel assigning method of claim 2, wherein if a previous channel assignment message is deleted, the start time and sequence number of the channel assignment message are set according to a start time and a sequence number of the previous channel assignment message and the duration of the channel assignment message is set to 0.

4. (Original) The channel assignment method of claim 1, further comprising the step of updating a previous channel assignment message.

5. (Original) The channel assigning method of claim 4, wherein if a previous channel assignment message is updated, the start time, sequence number, and duration of the channel assignment message are set according to a start time, sequence number, and duration of the previous channel assignment message.

6. (Original) The channel assigning method of claim 3, wherein if the previous channel assignment message is deleted, the sequence number of the channel assignment message is set to

be identical to the sequence number of the previous channel assignment message.

7. (Original) The channel assigning method of claim 5, wherein if the previous channel assignment message is updated, the sequence number of the channel assignment message is set to be identical to the sequence number of the previous channel assignment message, or a transmission period between the start time and the end of the duration of the channel assignment message overlaps with a transmission period between the start time and the end of the duration of the previous channel assignment message for a predetermined time period.

8. (Original) The channel assigning method of claim 1, wherein the channel assignment message is a supplemental channel assignment message.

9. (Previously Presented) A scheduling table making method comprising the steps of:

receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message, each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for identifying channel identification; and

storing the received channel assignment messages in a memory according to the start times, durations, and sequence numbers of the channel assignment messages, so that data communication is conducted on channels assigned by the channel assignment messages.

10. (Original) The scheduling table making method of claim 9, further comprising the step of deleting a channel assignment message from the memory if it is determined based on the start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the memory and requests the stored channel assignment message to be deleted.

11. (Original) The scheduling table making method of claim 9, further comprising the step of updating a channel assignment message in the memory if it is determined based on the

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start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the memory and requests the stored channel assignment message to be updated.

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12. (Original) The scheduling table making method of claim 10, wherein if a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message is in the memory, it is determined that the received channel assignment message was stored in the memory.

13. (Original) The scheduling table making method of claim 12, wherein if the duration of the received channel assignment message is 0, it is determined that the received channel assignment message requests the stored channel assignment message to be deleted.

14. (Original) The scheduling table making method of claim 11, wherein if the memory has a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message or if the memory has a channel assignment message having a transmission period between a start time and the end of a duration that is overlapped with a transmission period between the start time and the end of the duration of a received channel assignment message, it is determined that the received channel assignment message was stored in the memory.

15. (Original) The scheduling table making method of claim 14, wherein if the duration of the received channel assignment message is not 0, it is determined that the received channel assignment message requests the stored channel assignment message to be updated.

16. (Original) The scheduling table making method of claim 10, wherein the channel assignment messages are supplemental channel assignment messages.

17. (Previously Presented) A channel assigning method for a mobile station in a CDMA mobile communication system, comprising the steps of:

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receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message, each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification;

storing the received channel assignment messages in a memory according to the durations and sequence numbers or the message identifier of the channel assignment messages; and

conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message and then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message.

18. (Original) The channel assigning method of claim 17, further comprising the step of deleting a channel assignment message from the memory if it is determined based on the start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the memory and requests the stored channel assignment message to be deleted.

19. (Original) The channel assigning method of claim 17, further comprising the step of updating a channel assignment message in the memory if it is determined based on the start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the memory and requests the stored channel assignment message to be updated.

20. (Original) The channel assigning method of claim 18, wherein if a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message is in the memory, it is determined that the received channel

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assignment message was stored in the memory.

21. (Original) The channel assigning method of claim 20, wherein if the duration of the received channel assignment message is 0, it is determined that the received channel assignment message requests the stored channel assignment message to be deleted.

22. (Original) The channel assigning method of claim 19, wherein if the memory has a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message or if the memory has a channel assignment message having a transmission period between a start time and the end of a duration that is overlapped with a transmission period between the start time and the end of the duration of a received channel assignment message, it is determined that the received channel assignment message was stored in the memory.

23. (Original) The channel assigning method of claim 22, wherein if the duration of the received channel assignment message is not 0, it is determined that the received channel assignment message requests the stored channel assignment message to be updated.

24. (Original) The channel assigning method of claim 17, wherein the data communication step comprises the steps of:

reading a channel assignment message with the earliest start time and conducting data communication on a channel corresponding to the channel identifier of the read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message;

reading a channel assignment message with the start time second to the earliest and conducting data communication on the existing channel for a period between the start time and the end of the duration set in the second read channel assignment message if the channel identifiers of the first and second read channel assignment messages are identical;

releasing the existing channel at the end of the duration set in the first read channel assignment message if the channel identifiers of the first and second read channel assignment

messages are different, and conducting data communication on a channel corresponding to the channel identifier of the second read channel assignment message for a period between the start time and the end of the duration set in the second read channel assignment message.

25. (Original) The channel assigning method of claim 24, wherein if the channel identifiers of the first and second read channel assignment messages are identical and the time from the end of the data communication according to the first read channel assignment message and the start time until the start time of the second read channel assignment message is a predetermined time or greater, the existing channel is released, the released channel is reestablished from the start time and the end of the duration of the second read channel assignment message, and conducting data communication on the reestablished channel.

26. (Original) The channel assigning method of claim 17, wherein the channel assignment messages are supplemental channel assignment messages.

27. (Previously Presented) A channel assigning apparatus for a mobile station in a CDMA mobile communication system, comprising:
a receiver for receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, without the base station receiving a channel assignment request message, each of the channel assignment messages having the fields of a start time, a duration, a sequence number or a message identifier for identifying two or more messages, and a channel identifier for channel identification;
a memory having a scheduling table for storing the received channel assignment messages; and
a controller for storing the received channel assignment message in the scheduling table of the memory according to the durations and sequence numbers or the message identifier of the channel assignment messages, sequentially reading the stored channel assignment messages, and assigning channels based on the channel identifiers of the read channel assignment messages, for data communication.

28. (Original) The channel assigning apparatus of claim 27, wherein the controller deletes a channel assignment message in the scheduling table if the controller determines based on the start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the scheduling table and requests the stored channel assignment message to be deleted.

29. (Original) The channel assigning apparatus of claim 27, wherein the controller updates a channel assignment message in the scheduling table if it is determined based on the start time, duration, and sequence number of the channel assignment message that the channel assignment message was stored in the scheduling table and requests the stored channel assignment message to be updated.

30. (Original) The channel assigning apparatus of claim 28, wherein if a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message is in the scheduling table, the controller determines that the received channel assignment message was stored in the scheduling table.

31. (Original) The channel assigning apparatus of claim 30, wherein if the duration of the received channel assignment message is 0, the controller determines that the received channel assignment message requests the stored channel assignment message to be deleted.

32. (Original) The channel assigning apparatus of claim 29, wherein if the scheduling table has a channel assignment message having a sequence number identical to the sequence number of a received channel assignment message or if the scheduling table has a channel assignment message having a transmission period between a start time and the end of a duration that is overlapped with a transmission period between the start time and the end of the duration of a received channel assignment message, the controller determines that the received channel assignment message was stored in the scheduling table.

33. (Original) The channel assigning apparatus of claim 32, wherein if the duration of the

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received channel assignment message is not 0, the controller determines that the received channel assignment message requests the stored channel assignment message to be updated.

34. (Original) The channel assigning apparatus of claim 27, wherein the controller conducts data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message and then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message.

35. (Original) The channel assigning apparatus of claim 27, wherein the channel assignment messages are supplemental channel assignment messages.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 C.F.R. 1.130, 1.131, 1.132 or entered by the Examiner and relied upon by Appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. 41.37.

REVOCATION OF POWER OF ATTORNEY WITH NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Application Number	9/761,005
	Filing Date	
	First Named Inventor	
	Art Unit	
	Examiner Name	
	Attorney Docket Number	678-595

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

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I am the:

☐ Applicant/Inventor

☒ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record	
Signature	
Name	Jong Yong Yun, President of Samsung Electronics Co., Ltd.
Date	16. Nov. 2006	Telephone

NOTE. Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. see below.

☐ *Total of _____ forms are submitted.

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